MONTANA STATE LIBRARY

MONTANA STATE LIBRARY
PATIENTS' LIBRARY
MONTANA STATE HOSPITAL

1990 ANNUAL REPORT

Prepared for:

THE MONTANA STATE LIBRARY COMMISSION

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SERVICES

The Patients' Library was made possible by a Federal Library Services and Construction Act and first opened in 1969. At the time the library opened there were over 2000 patients residing at Montana State Hospital (MSH). Today MSH operates as a state mental hospital at two sites, Galen and Warm Springs. Total population now currently averages about 500 (around 290 patients are at Warm Springs) and the hospital is staffed by over 700 employees. The state prison for women, the Women's Correctional Center, was added to the campus in 1982 by renovating a former nurses' dorm.

The library is administered by the Montana State Library and operates as a complete library within the grounds of Montana State Hospital. The library serves Montana State Hospital patients, hospital staff, the Women's Correctional Center, WCC staff and the families of staff members.

The library provides several direct services to the patrons of Montana State Hospital through the following locations:

1. The **Patients' Library** is located in the multi-purpose building on the Warm Springs campus. It consists of a main room, a music room and an outdoor patio. As a patient library, the library operates as a public library with more general-interest items than medical items. The library offers a solid collection in the nonfiction and fiction areas as well as a large collection of self-help and psychology books, record albums, games and puzzles, reference items, vertical file and information resources.
    a. Hours: open 28 hours per week
    b. Patrons: 30-50 per day served

2. A program that was reinstated in 1989 was the reading program at **Spratt 219**, the elderly treatment ward on the campus. The librarian starts the program with readings of current events from a popular magazine or newspaper and discusses each article. Then the librarian reads from a fiction or relevant nonfiction selection for the remainder of the time. In the fall of 1989, the Patients' Library acquired several kits from the Bi-folkal Productions. These kits incorporate the use of the senses through cassette tapes, slides and mementos to touch. The kits were used by both the library and the rehabilitation staff in 1990 and were a tremendous asset. Plans for 1991 include the purchase of more kits and the introduction of guitar music by the librarian.
    a. Hours: one hour per week
    B. Patrons: averages 20 per reading session

3. Another service the Patients' Library provides is a Forensic library. The Forensic building was opened in September 1988 as the maximum security unit for the hospital. Patients stay in this building for security reasons, court-ordered evaluations or closer supervision and evaluation than is available on the wards. Because of the security designation, patients are confined to the building and also to their respective wards on Forensic.

In 1989 the Forensic library underwent a major change in collection. In the past the books were on loan from the Patients' Library and many were lost or destroyed. In 1989 the books in the Forensic library were replaced entirely with both fiction and non-fiction donations. In addition, patients may request any items from the Patients Library and their requests are filled within 24 hours.

     a. Hours: 5 1/2 hours per week, 1 1/2 of those on Maximum
     b. Patrons: 80 total, average of 30 use the library per week

4. The library also provides service to the Women's Correctional Center (WCC). WCC consists of one main building housing approximately 50 inmates and an expansion unit that handles 14 high security inmates. Total population continues to grow each year (up 15 from 1989). During the first nine months of 1990, Patients' Library provided a rotating book cart with 40-50 fiction and nonfiction books for the main building. The expansion unit received donated books from Patients' Library to form a permanent book cart. Both these carts were dropped in late 1990 with the arrival of the traveling trunk system (see service item 8). Compared to the carts the trunks provide three times the volume, are much more current and they are rotated every 3 months. The trunks are managed by an instructor at the prison. In addition to the inmates who are allowed ground privileges, WCC also brought a group over every 1 to 2 weeks. Patients' Library provided service on a request basis to both units.

     a. Hours: continuous
     b. Patrons: approximately 30% of the population visits the Patients library in person.

5. The librarian monitors several book carts, including one on Spratt. Spratt (geriatric unit) books are loaned from the Patients' Library and are changed approximately every six months. The books include travelogues, large print, short story and popular fiction selection.

     a. Hours: continuous
     b. Patrons: 50 on two wards

6. The book cart on Intake is changed about every four months. The 20 patients on Intake spend two weeks on the unit before they are placed within the hospital. Although they are restricted to that unit, they are served through the book cart, phone requests and sponsored visits to the library.

     a. Hours: continuous
     b. Patrons: 20 total

7. Book carts on the Treatment Units are stocked with donated books as patients in those buildings have access to the main library. These books are checked periodically and changed among the wards so that there is different reading material available.

     a. Hours: continuous
     b. Patrons: 150 on seven wards

8.   The traveling trunk system consists of seven colorful wooden trunks filled with fiction/nonfiction books, audio cassette books and a cassette player with headphones.   Each trunk contains approximately 125 items. Participating libraries include Patients' Library at Warm Springs, WCC library, WCC expansion unit, Alcoholism Service Center at Galen, Lighthouse Program at Galen and Mountain View School in Helena.   The trunks are rotated every 2-3 months (tentative plan.)

The first trunk was placed at the Lighthouse Program in September of 1990.   By late February of 1991, all participating libraries will have a trunk in place.   Early reports from the programs are that the trunks are a great success.

Management of the trunks is carried out by Library Development / Montana State Library and the Patients' Library at Warm Springs.

IN-SERVICE TRAINING

Both Montana State Library and Montana State Hospital provide ongoing training for their employees.   The State Library helped sponsor workshops and conferences on library issues, and the Montana State Hospital offered many workshops on mental health issues.   The librarian was able to attend several training programs through each agency.

1.   January 18, 1990.   Depression, Borderline Disorder and Manic Depression, staff development, MSH, Warm Springs.   A workshop was presented to show how to identify these illnesses and how staff deals with them.

2.   January 1990.   Equal Employment Opportunity issues with a focus on sexual harassment, staff development, MSH, Warm Springs.

3.   October 3, 1990.   Beginning Micro Skills, The Computer School, Helena.   A one day course was taken and completed.

4.   October 10, 1990.   Introduction to Wordperfect 5.0, The Computer School, Helena. A two day course was taken and completed.

Plans for education in 1991 include:

1.   Introduction to Lasercat Ultracard/Marc, Missoula this spring.

2.   Montana State Library Reference Institute, Helena in June.

3.   Various inservice training at MSH, Warm Springs.

PERIODICALS

Each year Montana State Hospital budgets an amount for newspapers and periodicals at the Patients' Library. The budget allocated for 1989-90 was $924.00. This amount was spent by the end of 1989 with one new subscription (to replace one that was duplicated by a gift) and two subscriptions that were not renewed. As subscription prices continue to rise the budget generally remains the same.

The budget for 1990-91 was $1163.00 and as of the date of this report, it is all spent except $12.00. Two more subscriptions still need to be renewed. Montana State Hospital did allocate an additional $1100.00 to pay for a WLN Lasercat subscription.

The following statistics emphasize the need for adequate budgeting:

FISCAL YEAR	AMOUNT BUDGETED	AMOUNT SPENT	# OF PAPERS	# OF MAGAZINES
90/91	$1163.00+	N/A	5	16
89/90	$924.00	$1006.29	5	14
88/89	$897.00	$973.74	5	15
87/88	$996.00	$1006.65	6*	13
86/87	$1011.00	$735**	**	**
85/86	$1435.00	$1347.75	**	**
84/85	$1012.00	$1012.00	6*	23
83/84	$1078.00	$1078.00	6*	34
82/83	$961.00	$960.28	4	27
81/82	$961.00	$959.16	6*	35
80/81	$738.00	$738.30	**	**

* This includes a subscription to USA Today, a daily national paper. The library presently does not have a national paper.
**Information not available--incomplete financial reports.
+ This amount plus $1100.00 for Lasercat.

The following newspapers are donated:
     1. Montana Standard
     2. Bozeman Chronicle
     3. Anaconda Leader
     4. Christian Science Monitor
     5. Whitefish Pilot
     6. Kalispell News
     7. Roundup Record-Tribune
     8. Tobacco Valley News
     9. Plentywood Herald
     10. Fairfield Times
     11. The Independent-Enterprise
     12. Boulder Monitor
    *13. The Miles City Star

     * new for 1990

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The following magazine subscriptions are donated:
1. Reader's Digest
2. National Geographic
3. US News & World Report
4. Time
5. Ideals
6. Guideposts
7. Montana Farmer-Stockman
* 8. Inside Sports
* 9. Outside

* new for 1991

DONATIONS--BOOKS

One large donation of books was made in 1990 by an anonymous donor from Libby. Two other large donations came from Anaconda and Helena. On a smaller scale, many staff members and patients donated books after they were done reading them. A small percentage of these books were used to fill the Patients' Library collection, while the rest were used primarily to fill the Forensics Library.

INMATE SUPPORT STATISTICS

On September 18, 1989 the on-the-job-training program with Women's Correctional Center employees was reinstated. Inmates and patients had worked in the Patients' Library at Warm Springs in the past, but due to personnel changes there had not been a library worker for several months. In 1990 one inmate worker contributed 15 hours per week. In addition, this worker donated 7 1/2 hours per week. The wages were paid by the employment program at no extra cost to the Patients' Library. The inmate worker performed the following tasks:
1. filing books and catalogue cards,
2. cataloging and processing new acquisitions,
3. monitoring circulation through check-out, check-in and book request procedures,
4. miscellaneous duties such as organizing albums, composing and typing correspondence and assisting patrons.

The inmate benefits by learning skills that make that person more employable when she is ready to leave the institution. The arrangement with WCC is beneficial to the Patients' Library as an inmate is long-term and the worker can be trained to do more complex and comprehensive tasks.

SPECIAL PROMOTIONS

The Patients' Library held several special promotions during 1990 in an effort to generate interest in the library materials and get regular patrons to take a new look at the library. Contests are well received and patients look forward to them. The following events were conducted during 1990.

1. The annual **Patients Library Poetry Contest** is held every April in conjunction with National Library Week. Patients may submit an original poem, prose item or other literary work. The entries are judged by a panel of employees, usually from the rehabilitation department. In 1990, there were ten entries which came from four different wards on campus. The prizes for the contest were as follows: $20 for first place, $15 for second place and $10 for third place. The money for the prizes came from a special contribution to the library earmarked for that purpose by the donor.

2. In October a **Halloween** contest was held. Patrons had to guess the number of candy pumpkins in a jar the week before Halloween. The total number of entries was 28, and there were three prizes given. First prize was a library logo note pad and two pens, second prize was a library note pad and third prize was a library carry bag.

3. An ongoing award is given for patients who return lost books. Any patient who returns a lost book (one that is not currently in the circulation file and belongs to the Patients' Library) is given a pen with a library logo on it.

4. Starting in 1990, the Patients' Library began circulating a calendar at the beginning of the month and a flyer about mid-month. Thirty copies are circulated to patient areas, WCC and staff areas. The calendar contains library hours, schedule changes and general interest items. The flyer is used to promote a monthly theme and provide updated library news.

5. In June a "Spring Cleaning Contest" is held to weed out old books and records. The first person in the library for three days won a library carry bag and every patron could register for prizes. First prize was a "Love my Library" mug, second prize was a library logo note pad and pen and third prize was a "Make a Book Date" button.

PUBLIC RELATIONS

Every year the librarian is asked to participate in several hospital-wide activities scheduled for patients. In assisting with the activities, the librarian has been able to establish a network of colleagues throughout the grounds and promote the library to hospital staff. During these times the library is closed so the librarian can assist the staff. Because there are so many patients involved, there are very few patrons in the library at those times.

The hospital has several events which are scheduled from year to year and are highly attended by staff and patients:

1. In May of every year, patients and staff put on an art show. Many items are made throughout the year and are put up for sale at the art show. At the 1990 art show, the Patients' library put up a booth showing new records and books, and gave away free bookmarks with a library theme.

2. On July 25 the rehabilitation staff staged a one-day carnival. In 1990, the librarian put up booths and decorated, staffed a food booth and helped run several contests.

3. In October, the Montana Tech Men's Basketball Team played an intersquad game at MSH for the patients. The librarian worked the scorers bench and kept track of statistics. The librarian also made programs and posters for the event.

4. A week before Christmas, the staff goes Christmas caroling. This is a good chance to visit patients on closed wards and also staff that are in supplementary services, such as the laundry. Many patients who are confined because of health or security reasons look forward to this annual event. In 1990, the librarian accompanied the Rehabilitation Supervisor on guitar.

5. Throughout the year the staff sponsors dances and the librarian often is asked to help keep track of patients and to serve patients refreshments.

6. During holiday seasons the librarian is often asked to supply materials or record albums to staff for ward activities. In 1990 the librarian was asked for materials for Valentine's, St. Pat's, Mothers' and Fathers' Days, the Fourth of July, Fall, Halloween, Thanksgiving and Christmas.

7. The variety show was cancelled this year due to cold weather. The librarian was in Helena this year for a staff meeting during the Halloween festivities at MSH.

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	TOTAL
CHECKOUT													
FICTION	68	50	67	57	60	39	85	64	40	168	104	146	948
NONFICT.	71	67	118	57	73	35	65	59	24	60	143	103	875
JUV. FIC.	--	--	--	--	11	--	--	--	--	--	5	6	22
RECORDS	3	8	9	39	27	19	15	3	1	22	56	17	219
CATALOGS	3	7	--	7	3	--	--	--	--	--	4	3	27
ARTWORK	2	--	--	1	--	--	--	--	--	--	--	--	3
GAMES/ PUZZLES	--	--	--	--	--	--	--	--	--	--	--	--	0
BOOKS-- CLOSED WARDS													
FORENSIC	11	61	7	17	13	9	6	2	--	12	11	12	161
WCC	32	24	102	7	41	101	10	8	3	17	9	0	354
SPRATT	--	--	--	--	--	--	31	--	--	--	--	--	31
USERS													
PATIENTS	324	356	560	440	307	294	328	153	169	382	445	348	4106
EMPLOYEES	40	43	65	49	39	52	55	29	27	43	59	80	581
WCC	26	20	53	39	30	34	56	19	26	40	114	47	504
EMP. CH.	--	--	--	--	--	--	--	10	1	--	3	--	14
PUBLIC	--	1	2	--	2	--	1	--	--	1	--	--	7
ACTIVITY													
MUSIC	154	172	266	230	178	106	196	72	77	150	259	191	2051
PAPERS/ MAGAZINES	104	109	230	163	120	139	125	77	96	135	259	162	1719
REFERENCE													
ANS. HERE	4	9	13	3	1	4	4	1	5	7	11	16	78
MSL REF #	2	1	3	--	--	--	2	--	--	1	7	6	22
PHONE REQ.	3	2	1	--	1	--	--	--	1	--	--	1	9

The statistics at the Patients' Library are affected by several circumstances. The patient librarian terminated her employment in the middle of August and her position was not filled until September 17, 1990. Montana State Library provided assistance during this vacancy but only one person was here for a limited time each week, providing limited services. Statistics for August and September reflect this vacancy.

The increase in use by staff children for the summer months is obvious. They are out of school for vacation.

Far fewer books were transported to patients on the Forensic Unit in 1990 as this was the first complete year that Forensics had their own library.

WCC had a book cart that rotated approximately every three months. This is reflected in the large number of books sent over in March and June. This statistic should drop in 1991 as the book cart is replaced by the traveling trunks. The inmates may also request books by intercampus mail or the library helper from WCC is able to field requests directly from them.

Spratt 219 has a rotating book cart and this is changed every four to six months. Their book cart was stocked in July. Although this seems like a small amount for 50 patrons, Spratt patients have other services available to them. Some of the patients come to the library personally in groups or as individuals. The librarian runs a weekly reading program at the unit. And many patients have library cards and check out books. The staff uses the book cart mainly to read to patrons who can no longer read themselves.

The record albums that are loaned are a small percentage of the number that is actually in the collection (several hundred). Only certain records are available for circulation (approximately 20%). This is due to the high cost of replacement for albums. New albums disappear quickly when loaned to patients, and so only older records or duplicates are loaned. A staggering amount of patrons listened to music in the library in 1990. Beginning in 1991, Patients' Library will begin purchasing cassette tapes and players as record albums are becoming obsolete.

FORENSICS LIBRARY
1990 YEAR END STATISTICS

DIRECT USERS   YEAR END TOTALS
       NONFICTION---------------------------- 45
       FICTION ---------------------------- 245
       MAGAZINES--------------------------- 138
       CATALOGS---------------------------- 23

MAXIMUM USERS
       NONFICTION-------------------------- 129
       FICTION----------------------------- 500
       MAGAZINES--------------------------- 611

INDIRECT USERS
       NEWSPAPERS-------------------------- (continuous)
       REQUESTS TO LIBRARY----------------- 24

TYPE OF DIRECT USER
       PATIENTS---------------------------- 224
       FEMALE SECURITY--------------------- 48
       EMPLOYEES--------------------------- 66

REFERENCE
       ANSWERED HERE----------------------- 16
       ANSWERED AT MAIN LIBRARY------------ 29
       MSL REFERENCE----------------------- 4

INTERLIBRARY LOAN STATISTICS SUMMARY 1990

Of the 378 Interlibrary loans processed at Patients' Library, 270 were for books, 90 were for periodicals, 16 were for videos and 2 were for records albums.

It is encouraging to note that the staff at Montana State Hospital (MSH) had the greatest usage. Many of these requests were for periodicals. Prior to the installation of Lasercat, all periodical requests were sent to MSL and the MSL staff directed them to the appropriate libraries. With the installation of Lasercat a dramatic change occurred. Out of 192 staff requests in 1989, 144 were sent to MSL. Out of 185 staff requests in 1990, only 37 were sent to MSL.

WCC inmates constituted the next largest group of interlibrary loan users. Obviously, the service provided by the Patients' Library to that institution is greatly needed. Many of the items requested related specifically to prison literature or job training programs. Use may go up in 1991 as WCC is now offering courses from the College of Great Falls.

The patients were the next smallest group of users, but the interlibrary loan number represents those books or selections that could not be filled from the Patients' Library. Interlibrary loan requests were generally for very specific or technical information that could not be found here, or for new items that were not yet a part of the Patients Library collection. One dyslexic patron recieved 13 videos to account for all of the out of state loans for this group.

Tied with patients is the WCC staff. Most of these requests were from the teacher at WCC, who needed specific items for his lessons. Often these were literature items or periodical articles related to subject matter taught at the Center.

Forensic had the smallest group of users for 1990. All but three of these requests came from one individual who is preparing a court case. It is encouraging to see that Forensic patients do not use ILL very often as these patients are extremely ill and destroy books frequently.

Only two books were borrowed from Patients' Library during 1990. This statistic should rise also as many more holdings are entered on WLN each month.

INTERLIBRY LOAN STATISTICS

	PATIENTS	STAFF/MSH	STAFF/WCC	WCC/IN.	FORENSIC
MONTANA PUBIC LIBRARIES					
MtBu ------	1	4	0	3	0 / 8
MtH -------	4	5	0	5	2 / 16
MtGr ------	0	3	4	9	0 / 16
MtK -------	1	5	4	6	0 / 16
MtMis -----	1	5	0	6	0 / 12
MtBil -----	0	7	4	9	0 / 20
Other -----	6	16	3	7	1 / 33
MONTANA ACADEMIC LIBRARIES					
MtBC ------	2	12	3	6	0 / 23
MtU -------	2	14	2	5	0 / 23
MtBuM -----	2	2	0	2	0 / 6
Other -----	1	21	2	7	0 / 31
MONTANA OTHER					
Mt --------	5	37	7	20	0 / 69
Mt-L ------	0	4	0	1	24/ 29
Schools ---	1	4	2	0	0 / 7
OUT OF STATE					
Lasercat --	13	50	6	2	0 / 71
Other -----	0	1	0	0	0 / 1
TOTALS-----	38 --------	185 -------	38 -------	90 -------	27

* 2 books were loaned from Patients' Library to Montana public
  libraries

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July 31, 1991

TO: Richard Miller   TO: State   Library
                                          Commission
FROM: Jon Sesso   FR: Richard Miller

RE: Status Report: NRIS Program
           June 1, 1991 -- July 30, 1991

Assistance to Butte Local Government re: GIS

As has been reported in several Montana daily newspapers (see
attachments), the State Library, through the NRIS program, is
providing technical assistance to the Butte Silver Bow local
government. To help Butte install and develop a GIS for its use in
the Superfund project and beyond, NRIS is/will:

   1)   Help install the GIS hardware and software in the Butte
        offices;
   2)   Provide programming support to operate the GIS; offer
        several of the GIS programs developed at the Library;
   3)   Provide the digital data for Butte that has been acquired
        through the Superfund project;
   4)   Help recruit a GIS specialist to work in Butte; Stu
        Kirkpatrick, NRIS' GIS Technician since January, 1991,
        has been hired by Butte to be their GIS specialist -- he
        started July 29; and
   5)   Assist the local government in doing a needs assessment
        to determine how the GIS can be used in the long-term,
        and help prepare a report with recommendations on how the
        GIS can/will be supported by the local government once
        Superfund activities are completed.

Since ARCO recently agreed to fund the state's Superfund GIS work
through an agreement with the Montana Department of Health and
Environmental Sciences, which in turn, subcontracts the GIS work to
NRIS, and since ARCO is also funding the GIS activities in Butte,
ARCO has asked the NRIS staff to provide this assistance to Butte.
In other words, NRIS is providing this support as part of our
assigned duties under our Superfund contract. Jon Sesso **not hired**
by **ARCO** as reported in the newspaper, will help with the needs
assessment and report, and the GIS staff is handling the other
technical assistance tasks.

The project presents an excellent opportunity for NRIS to provide
direct support to a local government entity, which is part of the
NRIS mandate as established in the authorizing language for the
program.   The needs assessment report, in particular, could be a
model that other communities could use in determining their GIS
agenda.

Contracts Update:

-- We have established all necessary accounting entities to expend the "core funds" provided to the NRIS program by the Legislature. The direct appropriation of RIT funds has been made. Negotiations have commenced with Fish Wildlife and Parks regarding the use of license fees ($100,000) to support the program, and with State Lands regarding the use of federal funds ($30,000). We have also nearly finalized a two-year extension of the Library contract with The Nature Conservancy to manage and operate the Montana Natural Heritage Program.

-- We have drafted the contract with the Department of Natural Resources and Conservation regarding the Water Development Grant to develop the drought monitoring system. Start up is expected in October.

-- Negotiations have progressed regarding the new GIS Superfund contract with the Montana Department of Health and Environmental Sciences. The contract will be for two additional years of support. The big change is that the funds will be directly from ARCO (not EPA), and ARCO will become a more routine user of the GIS services at the Library.

   -- Related to this contract, the Library has officially notified PrimeTec Leasing, who holds the lease on our PRIME mini-computer and peripherals, that we will default on the lease, effective October 1, 1991 due to non-appropriation of funds from the federal government. Consequently, the equipment acquired through the lease will be "de-installed" by the vendor. Planning is underway to compensate for this loss of computing power and capability through other arrangements.

-- OTHERS:
   1) NRIS is expected to receive a $12,500 contract (by Aug. 15) for FY 1992 from the Washington State Energy Office to continue development of the Energy Generating Resource Database. This is a Northwest regional project on behalf of the Bonneville Power Administration.
   2) The Department of State Lands will renew an agreement with NRIS to provide technical assistance and support on GIS. Provides approximately $10,000/yr.
   3) The U.S. Geological Survey is expected to sign an agreement with NRIS in August to develop a set of computer programs that will allow users to access one of their databases on a PC. The programs developed by NRIS will be offered to all fifty states for their own use.
   4) Preliminary negotiations have commenced to extend the agreement to work on the Clark Fork Water Quality GIS project. NRIS support for the Department of Health and Environmental Sciences (DHES)/Water Quality Bureau will continue.
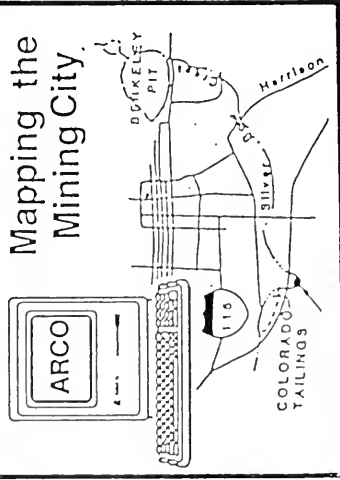
Activity Highlights:

-- Continued planning efforts for the 1991 Montana GIS Conference: Plans to Practice, to be hosted by MSU in Bozeman, December 3-5. The planning committee has met monthly; the Call For Papers was released in July; all systems go for another successful event.

-- Continued work on the <u>Montana Data Directory</u>. Added databases and distributed copies of the electronic product to interested users.

-- Continued substantive discussions with Information Resources Division on the <u>Montana Natural Resource Index</u>. Agreed to draft policy recommendations by Aug. 23 on how best to integrate -- how the <u>Index</u> activities of NRIS relate to the collection management activities of Information Resources. Also working with the Montana Department of Fish, Wildlife, and Parks on their collection cataloging efforts; investigating the possibility of making FWP a satellite WLN user as a test case.

- Work progressed on other tasks:
  -- Data requests: demand for data has been steady and continue to increase.
  -- Database development continued; substantial progress on the Heritage databases, with great help from our summer intern.
  -- Produced several map products for the Superfund project and other GIS initiatives.
  -- Provided a briefing to the Governor's staff on NRIS activities; went very well; followup tour on Aug. 19; also got a TV interview (for our project with the US Geological Survey) based on a referral from Governor's staff.
  -- Continued to provide support to the Legislative Council regarding the use of GIS on the redistricting process.
  -- In the midst of another successful season of data collection field season for Heritage work; due to the good moisture this spring, species identification has been excellent.

Travel Update:

-- There is no out-of-state travel to report at this time. The only trip in the period was by Jim Stimson to attend a hydrostatistics training course in Denver, July 22-26; his report was not available for this deadline and will be included in the next Commission report.

The Montana Standard

Vol. 116, No. 37   Good Morning! It's   Sunday, July 7, 1991   Butte • Anaconda $1

Super computer coming to Butte

Arco installing million-dollar map-making system

By Tina Vander Veer
Standard Staff Writer

(First of two parts)

Being a Superfund site might not be considered an asset by most Butte residents, but it does have its perks.

Having a million-dollar computer system installed for free in the planning office is one of them.

The Geographic Information System (GIS), to be installed Monday, can make maps of the city showing every house and garage. It can show where population has grown, which houses owe back taxes, and where water mains run and which streets have the longest traffic lights.

In fact, as Jon Sesso, a State Library employee and a Butte resident said. "It can do anything."

Usually used only by big cities, universities and federal agencies, GIS usually is far too expensive for a small city like Butte. Billings and Missoula are the only other cities in Montana that have the system, Sesso said.

But when Arco bought the system to help in the Superfund process, it decided to let the county use it too, providing a specialist to work the system and hiring Sesso to assist.

The GIS can map in three dimensions any information the programmer chooses to give it, adding a spatial dimension to information usually left in tabular form, Sesso said.

"GIS combines the power of computer mapping ability with computer data information," he said.

In practice, he said, that means the computer can map out many different kinds of information simultaneously.

For example, Sesso said, if a new industry came to town and wanted a site near a railroad, zoned for industry, of a certain size, at a certain elevation, with water and sewage hookups, "the guys at the planning department would have to work with several different pieces of information (to find a site).

But with GIS, he said, "You could tell the computer, 'Give me all the parcels that meet these seven conditions.'"

And the maps GIS produces for Butte are on a 1 to 6,200 scale, Sesso said, instead of the usual 1 to 24,000 scale.

That means it produces maps of remarkable detail, showing the outline of every house, every garage and every alley in the Uptown.

The maps are in fact "digitized" or computerized copies of aerial maps made by Arco for the Superfund process.

Originally, Arco mapped only the Uptown area, Sesso said, but is now taking aerial photographs of most of the flats and will enter those

Please see COMPUTER Page 8

Mapping the Mining City.

BERKELEY PIT

ARCO

COLORADO TAILINGS

Silver

Harrison

110

maps into the system within six months.

Planning Director Lee Tuoli said he expects that eventually, 70 to 80 percent of the populated area of the county will be in the system.

The computer has a library of 321 different colors, and the same number of variables can be printed on one map.

"Once it (the information) is in, you can do anything you want," Sesso said. "Your can map the toilets in every house if you want that level of specificity."

The computer can map population trends, telling school districts how many children to expect in future years and where those children might live, Sesso said.

It can also take any point on the map and analyze data within a certain distance from that point, Sesso said.

For example, he said, he can ask the computer to mark all EPA soils tests within 300 yards of a given house, and then tell it to color different all soil samples that exceeded EPA standards.

"It has the ability to analyze spatially one thing in relation to everything around it," he said.

Tuoli said the system's three-dimensional mapping could be used to plot the depth, size and age of sewer and water lines. Underground mine shaft locations are already being fed into the system, he said.

The planning office now has a GIS-produced map showing the physical condition of every building above Front Street, with different building conditions marked in four colors. Business buildings have their own color codes.

And Sesso says many county offices, from the tax assessor to public works to the fire department, can benefit from the wealth of possibilities GIS offers.

Next: Adopting the system. Can Butte afford it?